

### **Module 3 Assignment** –Problem 3

The detailed grain is the combination of individual supplier, individual product, and date.are-

1. 350 Franchise Rows and 200 Franchise Postal Codes , Total = 350
2. Sparsity estimate:
  - $1 - (\text{fact table size} / \text{product of dimension})$
  - $(1 - (610000 / (350 * 21 * 500 * 80000 * 365))) = 0.99999999431$
  - The data cube has less than 1% non zero cells.
3. 20 Service Category Row,1 Special Event Row Total = 21
4. Days per year: 365, Total = 365
5. 50000 Member Rows, 150 Member Rows\* 200 Franchises , 10 Member Type ,500 Member Zip Codes Rows ,Total =  $50000 + 150 * 200 = 80000$
6. 500 Merchandise Rows, Total= 500
7. 100,000 Service Purchase Rows,(300\*200) Special Events Purchase and 450,000 Contains Rows
8. Total Fact Table Size Increase =  $100000 + 450000 + 60000 = 610000$